

4 #11/Amc 3-20-03 J.R.

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FAX TRANSMITTAL

TO: Examiner Viktor Simkovic
COMPANY: United States Patent and Trademark Office
FROM: John G. Shudy, Jr.
RE: Serial No.: 09/749,171
Group Art Unit: 2812
Our File No.: 1100.1116101
DATE: October 31, 2002
FAX NUMBER: 703.308.7724
NO. OF PAGES: 4
(including fax cover sheet)

COMMENTS.

Per our telephone conversation please find attached the proposed amendment in regard to this matter.

PLEASE CALL LYRR at (612) 677-9050 IF ALL PAGES ARE NOT RECEIVED.

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FAX TRANSMITTAL

TO: Examiner Joan Dade

COMPANY: United States Patent and Trademark Office

FROM: John G. Shudy, Jr.

RE: THIN SILICON MICROMACHINED STRUCTURES
Serial No.: 09/749,171
Group Art Unit: 2812
Our File No: 1100.1116101 (H16-26635)

DATE: March 17, 2003

FAX NUMBER: 703.746.8825

NO. OF PAGES: 4
(including fax cover sheet)

COMMENTS: Per your telephone request, attached is a clean copy of the amended claims as faxed to the USPTO in October, 2002.

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Proposed Amendment

1. (Amended) A method for making a thin silicon structure comprising the steps of:

providing a glass wafer or substrate;
providing a silicon wafer having a first substantially planar surface and a second substantially planar surface;
forming a recess in said glass wafer or silicon wafer first surface;

bonding said silicon wafer to said glass wafer such that at least part of said silicon wafer first surface bonds to said glass wafer and at least part of said silicon wafer first surface overhangs said recess; and

after said bonding step, selectively removing a portion of said silicon wafer from said silicon wafer second surface through to said silicon wafer first surface such that a silicon structure is formed overhanging said recess; and

wherein at least one portion of said silicon wafer is not connected to another portion of said silicon wafer.

14. (Amended) A method for making a thin structure, comprising:

providing a first wafer or substrate;
providing a second wafer having a first substantially planar surface and a second substantially planar surface;
forming a recess in said first wafer substrate;

bonding said second wafer to said first wafer such that at least part of said second wafer first surface bonds to said

first wafer so that at least part of said second wafer first surface overhangs said recess; and

after said bonding step, selectively removing a portion of said second wafer from said second wafer second surface through to said second wafer first surface such that a thin structure is formed overhanging said recess; and

wherein at least one portion of said second wafer is not connected to another portion of said second wafer.

20. (Newly Presented) A method for making a thin structure comprising the steps of:

providing a first substrate having a first substantially planar surface and a second substantially planar surface;

providing a second substrate having a first substantially planar surface and a second substantially planar surface;

forming a recess in said first substantially planar surface of said first substrate and/or said first substantially planar surface of said second substrate;

securing said first substrate to said second substrate such that said first substantially planar surface of said first substrate faces said first substantially planar surface of said second substrate; and

after said securing step, selectively removing a portion of said first substrate from said second substantially planar surface of said first substrate such that a [silicon] structure is formed overhanging said recess; and

wherein at least one portion of said first substrate is not connected to another portion of said first substrate.

21. (Newly Presented) A method for making a thin structure comprising the steps of:

providing a first substrate having a first substantially planar surface and a second substantially planar surface;

providing a second substrate having a first substantially planar surface and a second substantially planar surface;

forming a recess in said first substantially planar surface of said first substrate and/or said first substantially planar surface of said second substrate;

securing said first substrate to said second substrate such that said first substantially planar surface of said first substrate faces said first substantially planar surface of said second substrate; and

selectively removing a portion of said first substrate from said second substantially planar surface of said first substrate such that a thin structure is formed overhanging said recess, said thin structure being doped at a concentration of between zero and 1×10^{18} atm/cm³; and

wherein at least one portion of said first substrate is not connected to another portion of said first substrate.